

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A punch device for a substrate having a large breadth and small thickness, the punch device comprising:

- a mechanism for winding and unwinding;
- a correcting control unit;
- a tension control unit;
- a hydraulic mechanism;
- a punch mechanism;
- a high frequency and high voltage generator;
- a detecting unit;
- a controlling means for speed;
- a pulse frequency and pulse width control; ~~and~~
- a user interface; and
- an electrode elevating mechanism;

~~characterized in that~~ wherein the punching mechanism is composed of comprises at least two or more electrode matrixes, each electrode matrix is made up of ~~a plurality of N sets of~~ electrode bars longitudinally arrayed which ~~forms form~~ an angle α with the movement direction of the substrate, the angle is changeable by adjusting the position of either end of the electrode bars;

wherein each pair of the electrode bars comprises a upper bar and a lower bar, and each pair of the electrode bars is composed of comprises an anode bar and a cathode bar on either side of the substrate, each bar ~~being is~~ is provided with M electrode-pins in the number of M-, and the electrode-pins provided on the respective upper bar and the respective lower bar are aligned with each other, with $1 \leq N \leq 100$ and $1 \leq M \leq 50$;

wherein the movement direction of the substrate crossing the electrode matrixes is vertically downward or upward and the axial direction of the positive and negative electrode-pins is horizontal; and

wherein the electrode elevating mechanism comprises a control computer and a hydraulic control system, the control computer simultaneously controls alignment of each pair of the electrode-pins and keeps a default interval between the electrode-pins of each pair of the electrode-pins by utilizing the hydraulic control system.

2. (Canceled)

3. (Original) The punch device of claim 1, wherein the detecting unit includes a rolling diameter detecting means, a tension detecting means, and an air permeability detecting means for the substrate.

4. (Currently Amended) The punch device of claim 1 wherein the high frequency and high voltage generator generates high power and high frequency voltage with an ~~IGBT~~ IGBT tube and a high frequency and high power booster.

5. (Currently Amended) The punch device of claim 1 wherein the controlling means for speed, pulse frequency and pulse width control includes a single interface for the detecting unit, a computing central processor, an output interface for signals of speed, an electrical pulse frequency and impulse width, and ~~a corresponding computer software~~ module embedded in the computing central processor for controlling the speed, the electrical pulse frequency and the impulse width.

6. (Original) The punch device of claim 1 wherein the angle α between the electrode bars and the movement direction of the substrate may be changed by adjusting the position of either end of the electrode bars.

7. (Canceled)

8. (New) The punch device of claim 1 wherein the default interval between the electrode-pins of each pair of electrode-pins is 0.5~5mm.